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09/691,163	10/19/2000	Hyun Goo Lee	P-141	4581

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EXAMINER	
WILSON, ROBERT W	
ART UNIT	PAPER NUMBER
2661	

DATE MAILED: 11/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/691,163	LEE, HYUN GOO	
	Examiner	Art Unit	
	Robert W Wilson	2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 August 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1.0 The application of Hyun Goo Lee entitled METHOD FOR HANDOFF OF MEDIUM RATE DATA CALL IN MOBILE COMMUNICATION SYSTEM filed on 10/19/2000 and amended on 8/10/04 which was requested foreign priority based upon REPUBLIC OF KOREA 45870/1999 dated 10/21/1999 was examined. Claims 1-12 are pending.

Claim Rejections - 35 USC § 103

2.0 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3.0 **Claims 1-7 & 10-12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang et. al. (U.S. Patent No.: 6,590,879)

Referring to **Claim 1**, Huang teaches: A method of a handoff of a medium rate data call in a mobile communication system (The applicant only uses "medium rate data call" in the preamble but never further defines "medium rate data call" in the claim limitation; therefore, "medium rate data" is given no weight because it reflects intended use. The reference teaches a method for handing off channels in a mobile communication network per Fig 1 or per col. 5 line 29-col. 9 line 67 and Figure 1) comprising:

Transmitting a PSMM (Pilot Strength Measurement Message from a mobile station to a base station including a BTS (Base station Transceiver Subsystem) to which a SCH (A supplemental Channel) is allocated when a pilot strength of the BTS to which the SCH is allocated is smaller than a pilot strength of a BTS to which the SCH is not allocated among a plurality of BTS to which the SCH is not allocated, according to the PSMM (The reference teaches a method of independently handing off four channels or combining the four channels in different combinations in order to create voice and packet services. Two of the four channels are an RL-SCH and a FL-SCH which can be combined in order to provide packet data services or SCH. The reference also teaches that the bases each send a pilot signal and the mobile responds with a PSSMs which measures the strength of the pilots. The PSSM signal is sent to the BSC through the BTSs. The BSC determines which PSSM is the strongest and hands off the RL-SCH and FL-SCH or SCH to the BTS with the strongest pilot strength per col. 5 line 29-col. 9 line 67 and Figure 1)

Huang does not expressly call for: SCH but teaches RL-SCH and FL-SCH per col. 5 line 29-col. 9 line 67.

It would have been obvious to one of ordinary skill in the art at the time of the invention that RL-SCH and FL-SCH perform the same function as SCH.

In Addition Huang teaches:

Regarding **Claim 2,** wherein a medium rate data service, a FCH (Fundamental channel) handoff procedure and a SCH handoff procedure are separately performed (The reference teaches that the FCH and a combination of FL-SCH and RL-SCH or SCH can be independently handed off per col. 5 line 29-col. 9 line 67)

Regarding **Claim 3**, wherein a SCH handoff is performed with respect to a predetermined number of BTS having a pilot strength strong enough to combining both FCH and SCH pilot signals by the mobile station among the BTS communicating with the mobile station (The reference teaches that the BSC controls handoff between a plurality of BTS associated FCH, RL-SCH, and FL-SCH which can be combined upon receipt of the strongest pilot signal per col. 5 line 29-col. 9 line 67. It would have been obvious to one of ordinary skill in the art at the time of the invention that the plurality BTS make up a predetermined number.

Referring to **Claim 4,** Huang teaches: A method for requesting a handoff of a medium rate data call in a mobile communication system (The applicant only uses "medium rate data call" in the preamble but never further defines "medium rate data call" in the claim limitation; therefore, "medium rate data" is given no weight because it reflects intended use. The reference teaches a method for requesting handoff in a mobile communication network per Fig 1 or per col. 5 line 29-col. 9 line 67 and Figure 1) comprising:

Measuring a pilot strength of a BTS (Base Station Transceiver Subsystem) to which a SCH (Supplemental Channel) is allocated and a pilot strength of another BTS to which the SCH is not allocated among BTSs communicating with the mobile station (The reference teaches method of independently handing off four channels or combining the four channels in different combinations in order to create voice and packet services. Two of the four channels are an RL-SCH and a FL-SCH which can be combined in order to provide packet data services. The reference also teaches that the bases each send a pilot signal and the mobile responds with a PSSMs which measures the strength of the pilots. The PSSM signal is sent to the BSC through the BTS. The BSC determines which PSSM is the strongest and handsoff the RL-SCH and FL-SCH to the BTS with the strongest pilot strength per col. 5 line 29-col. 9 line 67 and Figure 1)

Transmitting a PSMM (Pilot Strength Measurement Message) to a base station including the another BTS when the pilot strength of the BTS to which the SCH is allocated is smaller than the pilot strength of the BTS to which the SCH is not allocated as the result of the measurement (The reference teaches that the mobile transmits PSMM to the BSC through all of the BTS including the BTS which is smaller per col. 5 line 29-col. 9 line 67 and Figure 1)

Huang does not expressly call for: SCH but teaches RL-SCH and FL-SCH per col. 5 line 29-col. 9 line 67.

It would have been obvious to one of ordinary skill in the art at the time of the invention that RL-SCH and FL-SCH perform the same function as SCH.

Referring to **Claim 5,** Huang teaches: A method for performing a handoff of a medium rate data call of a base station (The applicant only uses "medium rate data call" in the preamble but never further defines "medium rate data call" in the claim limitation; therefore, "medium rate data" is given no weight because it reflects intended use. The reference teaches a method of performing a handoff call of a base station per Fig 1 or per col. 5 line 29-col. 9 line 67 and Figure 1) comprising:

Analyzing a PSMM Pilot Strength Measurement Message transmitted from the mobile station (The BSC receives the PSSM via the BTS and analyzes the PSSM per col. 5 line 29-col. 9 line 67 and Figure 1)

Comparing a pilot strength of a BTS (Base Station Transceiver Subsystem) to which a SCH (Supplemental Channel) is allocated with a pilot strength of a BTS to which the SCH is not allocated, if the allocation of the SCH is required (The reference teaches method of independently handing off four channels or combining the four channels in different combinations in order to create voice and packet services. Two of the four channels are an RL-SCH and a FL-SCH which can be combined in order to provide packet data services or SCH. The examiner interprets combining FL-SCH and RL-SCH as performing the same function as SCH. The BSC forces a handoff to the BTS associated with the strongest pilot per col. 5 line 29-col. 9 line 67)

Allocating the SCH to the BTS to which the SCH is not allocated and the BTS to which the SCH is allocated, if the pilot strength of the BYS to which the SCH is not allocated is larger than the pilot strength of the BTS to which the SCH is allocated as the result of the comparison, and the pilot strength to which the SCH is allocate is higher than T_ADD (The applicant broadly claims "T_ADD" and does not further limit the definition of "T_ADD" in the claim. The examiner interprets "T_ADD" as a value equal to the current amount of pilot strength which the SCH is being assigned to. The examiner interprets that the BSC allocates the mobile SCH to the pilot which the strongest by determining whether the pilot is greater that the current value or strength to which the group is assigned to per col. 5 line 29-col. 9 line 67 or performing the function of "T_ADD")

Allocating the SCH to a BTS having a largest pilot strength if the SCH is not allocated to an active BTS, when a DROP of the BTS to which the SCH is allocated is required (The reference teaches that the mobile is always assigned to the largest BTS with the strongest or largest pilot and that the BSC sends messages to the mobile as to when to perform the handover per col. 5 line 29-col. 9 line 67)

Huang does not expressly call for: when a DROP of the BTS to which the SCH is allocated is required but teaches BSC sends messages to the mobile as to when to perform the handover per col. 5 line 29-col. 9 line 67)

It would have been obvious to one of ordinary skill in the art at the time of the invention that because sending messages to the mobile as when to perform a handover and which BTS to handover performs the same function as when a DROP of the BTS to which the SCH is allocated is required.

In Addition Huang teaches:

Regarding **Claim 6**, wherein, if the pilot strength of the BTS to which the SCH is not allocated is larger than the pilot strength of the BTS to which the SCH is allocated, the pilot strength of the BTS to which the SCH is allocated is not higher than T_ADD. The allocation of the SCH to the active BTS to which the SCH is not allocated is performed and the release of the SCH resource from the BTS to which the SCH is allocated is performed (The examiner interprets "T_ADD" as a value equal to the current amount of pilot strength which the SCH is being assigned to. The examiner interprets that the BSC allocates the mobile SCH to the pilot which the strongest by determining whether the pilot is greater that the current value or strength to which the group is assigned to per col. 5 line 29-col. 9 line 67 or performing the function of "T_ADD")

Regarding **Claim 7**, if the pilot strength of the BTS to which the SCH is not allocated is larger than the pilot strength of the BTS to which the SCH is allocated, it is judged that a new pilot signal having a pilog strength larger tha the pilog streng of the BTS to which the SCH is allocatd is to be added, and if the pilot strength to the BTS opf which an ADD handoff is performed is higher than a reference threhsodl, a handloff is performed by simulrantoeuly allocating both FCH and SCH to the BTS which the ADD hanoff is performed.

Referring to **Claim 10**, Huang teaches: A handoff method (The reference teaches handoff method per Fig 1 and per col. 5 line 29-col. 9 line 67) comprising:

Comparing a pilot strength of a first BTS (Base Station Transceiver Subsystem) to which a SCH (Supplemental Channel) is allocated with a pilot strength of a second BTS to which a SCH is not allocated (The BSC receives a PSSM message through the BTS which provides a comparison between the measured value of pilot strengths from the BTS which the mobile channel has been assigned as well as not assigned respectively per col. 5 line 29-col. 9 line 67)

Performing a handoff to the second BTS when the pilot strength of the first BTS is smaller than the pilot strength of the second BTS (The BSC forces a handoff to the BTS which has the strongest pilot strength which would result in a handoff to the second BTS when the pilot strength of the first BTS is smaller than the second BTS per Col. 5 line 29-col. 9 line 67)

Huang does not expressly call for: SCH but teaches RL-SCH and FL-SCH per col. 5 line 29-col. 9 line 67.

It would have been obvious to one of ordinary skill in the art at the time of the invention that RL-SCH and FL-SCH perform the same function as SCH.

In Addition Huang teaches:

Regarding **Claim 11**, wherein a FCH (Fundamental Channel) handoff procedure and a SCH handoff procedure are separately performed (The reference teaches that the combinations of the four channels can be independently handoff per col. 5 ine 29-col. 9 line 67. It would have been obvious to one of ordinary skill in the art at the time of the invention that the FCH and the combination of RL-SCH and FL-SCH would be processed for handoff independently)

Regarding **Claim 12**, wherein the SCH handoff is performed with respect to a predetermined number of BTS having a pilot strength strong enough to combine both FCH and SCH pilot signals by the mobile station among the BTS communicating with the mobile station (The reference teaches that the combinations of the four channels can be independently handoff per col. 5 line 29-col. 9 line 67. It would have been obvious to one of ordinary skill in the art at the time of the invention that the FCH and the combination of RL-SCH and FL-SCH could be combined based upon the pilot strength)

Claim Rejections - 35 USC § 112

4.0 The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5.0 **Claims 5-9** are rejected relative to 112/2nd paragraph because the metes and bounds of the claims cannot be assessed.

Referring to **Claim 5**, Claim 5 is written in a run on sentence format in which a series of tests are performed. What is meant by "allocating the SCH to the BTS having a largest pilot strength, if the SCH is not allocated to an active BTS, when a DROP of the BTS to which the SCH is allocated is required"? What is an "active BTS"? Is the applicant trying to say "If DROP BTS has been sent to the mobile then allocate SCH to the BTS having the larger pilot strength"? The examiner suggests that the applicant rewrite this claim in a non run on sentence structure while clearly and logically defining the tests performed.

Referring to **Claim 7**, Claim 7 is written in a run on sentence format in which a series of tests are performed. What is meant by "if the pilot strength of the BTS to which the SCH is not allocated is larger than the pilot strength of the BTS to which the SCH is allocated it is judged that a new pilot signal having a pilot strength larger than the pilot strength of the BTS to which the SCH is allocated is to be added, and if the pilot strength of the BTS to which an ADD handoff is to be performed is higher than a reference threshold, a handoff is performed by simultaneously

allocating both FCH and SCH to the BTS of which the ADD handoff is performed"? There is no antecedent basis for "new pilot signal". This claim consists of a number test in which the meaning is not clear. The examiner suggests that the applicant rewrite this claim in a non run on sentence structure while defining the series of tests in a meaningful logical order.

Response to Arguments

6.0 Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.

The examiner respectively disgrees with the applicant's argument that the new reference fails to teach the limitations of 1-12. Please refer to the above rejection for details.

7.0 Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

8.0 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert W Wilson whose telephone number is 571/272-3075. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye can be reached on 571/272-3078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Robert W. Wilson

Robert W Wilson
Examiner
Art Unit 2661

RWW
October 26, 2004

KENNETH VANDERPUYE
PRIMARY EXAMINER